REMARKS/ARGUMENTS

Claims 2, 8, 24-27, 29, 31, 32, 34-39, and 41-44 are pending in the application.

Any amendments to the claims which have been made in this amendment, and which have not been specifically noted to overcome a rejection based on prior art, should be considered to have been made for a purpose unrelated to patentability, and no estoppel should be deemed to be attached thereto. Reconsideration and reexamination of the application is respectfully requested in view of the amendments and the following remarks.

Rejection Under 35 U.S. C. § 103(a)

Claims 2, 8, 24-27, 29, 31, 32, 34-39, and 41-44 stand rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over U.S. Patent No. 3,888,269 to Bashark in combination with U.S. Patent No. 5,586,567 to Smith et al., and U.S. Patent No. 6,432,216 to Thies. The rejection is traversed.

Bashark '269 discloses a turbidity/dryness sensor 26 mounted in the sump portion 24 of a dishwasher chamber 12 wherein the degree of turbidity of the dishwashing liquid is determined based upon outputs from the turbidity/dryness sensor 26. The turbidity is used to modify a predetermined operating cycle comprising one or more pre-set rinse steps. For example, a user may select either a rinse only, or a rinse-dry cycle.

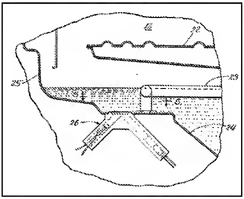

Figure 3 of Bashark '269

The first step of the rinse only cycle is a fill of the chamber 12 followed by pumping of the liquid against the dishes by a spray arm 22. The spray is then discontinued while the turbidity/dryness sensor 26 is utilized to determine the turbidity of the liquid. If the turbidity so sensed is above a preselected turbidity value, the cycle is completed by again pumping the liquid through the spray arm 22. At the end of this time, the liquid is drained and a second charge of

liquid is delivered to the chamber 12. The liquid is then sprayed against the dishes, and the second quantity of liquid is drained. *Col. 9, ln. 2-25.*

If the turbidity of the liquid sensed during the first rinse step is below the preselected turbidity value, the cycle continues with a spray operation followed by a drain. *Col. 9, ln. 26-34.*

Alternatively, the user may select a full wash cycle. The first step comprises a fill of rinse liquid, a pump spray operation, and a drain of the first rinse liquid. The second step is then initiated comprising a refill of rinse liquid, a pump spray, and operation of the turbidity/dryness sensor to determine the turbidity of the second rinse liquid. If the rinse liquid turbidity is less than a preselected turbidity value, detergent is released into the rinse water, thereby converting the rinse step to a wash step. This wash step is then continued followed by a drain. Two successive rinse operations are then completed by a first refill of rinse liquid, a pump spray, a drain, a second refill of rinse liquid, a pump spray, and a drain. *Col. 9, ln. 44-65.*

If the turbidity determination indicates that the liquid is above a preselected turbidity value, the second rinse step is continued as a rinse operation followed by a drain, a refill of the tub with a rinse liquid, followed by a pump spray. The turbidity is again determined, and if the turbidity is now less than the preselected turbidity value, the operation is completed by delivering detergent into the liquid, thereby converting the rinse step to a wash step. This wash step is then continued, followed by a drain. This is followed by two successive rinses as described above. *Col. 10, ln. 5-21.*

If the turbidity sensed during this second turbidity determination is greater than the preselected turbidity value, a third rinse step is effected by completing the cycle subsequent to the turbidity determination by a pump spray and a drain. Upon completion of the third rinse step, the wash step is initiated by filling of the tub with liquid, delivering detergent into the liquid, continuing the pump spray, and draining the wash liquid. The operation is continued by providing two additional rinse steps as described above. *Col. 10, ln. 22-36.* To summarize, Bashark '269 teaches no more than monitoring turbidity of the wash liquid to determine if

additional rinses are needed.

Smith describes a dishwasher 10 having a turbidity sensor 25 which is installed in a housing below a sump 13, and defines turbidity as "a measure of the suspended and/or soluble soils in the fluid that causes light to be scattered or absorbed." *Col. 3, ln. 51-53.* Turbidity values obtained at various times during the operation of the dishwasher 10 are used to modify the wash and rinse cycles depending on the degree of soiling of the items being cleaned. *Col. 5, ln. 27-32.* A turbidity determination is made while the dishwasher 10 is paused in order to minimize the generation of bubbles in the dishwashing fluid during the turbidity sensing. *Col. 5, ln. 11-14.* The turbidity sensor 25 is calibrated against clean water after introduction of the water into the dishwasher 10 but before initiation of the circulation of the liquid. *Col. 5, ln. 19-32, 57-67 – col. 6, ln. 1-9.* This enables the sensing operation to accurately determine the turbidity of the wash or rinse liquid after subsequent washing or rinsing steps. No other processing of the data from the turbidity sensor 25 is disclosed in Smith.

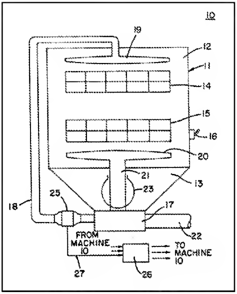

Figure 1 of Smith '567

Thies '216 discloses a dishwasher having an interior tub 12 with a sump 18. A soil collector and wash pump assembly 20 are centrally located in the bottom of the tub 12. A lower wash arm assembly 22 extends upwardly therefrom, and an upper wash arm assembly 23 is positioned above the lower wash arm assembly 22. The soil collector and wash pump assembly 20 includes a motor 25 suspended below the tub 12. A pump chamber 40 is supported within the sump region and houses a wash pump 31 having a wash impeller 38. An annular soil collector 46 is disposed about the pump chamber 40.

During the wash mode, the wash impeller 38 draws wash liquid from the sump 18 through a pump inlet 63, into the pump chamber 40 and pressurizes the wash liquid within the pump chamber 40. The majority of the pressurized wash liquid is directed through a pump outlet 34 to the lower wash arm assembly 22 and an upper wash arm supply tube 52. A valve 108 may be provided at the pump outlet to selectively direct wash liquid to the lower and upper wash arms and over the dishes for removing soils. *Thies '216, col. 3, ln. 66 – col. 4, ln. 1.*

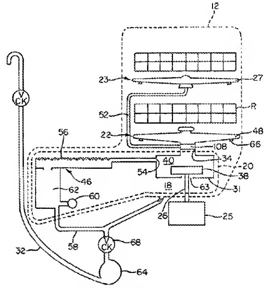

Figure 2 of Thies '216

A portion of wash liquid within the pump chamber 40 is directed to a secondary outlet 54 and from there into the soil collector 46. A fine mesh filter 56 is positioned along the top of the soil collector 46 and permits flow of cleansed wash liquid to exit the soil collector 46 and return to the dishwasher sump region 18.

During the wash mode, the filter 56 is repeatedly backflushed. The lower wash arm assembly 22 has a lower wash arm 48 extending outwardly above the soil collector. The wash arm 48 rotates as pressurized wash liquid is emitted from downwardly directed jets 66. As the lower wash arm 48 rotates, this sweeps across the filter 56 providing a backwashing action to keep the filter screen 56 clear of soil particles which may impede the flow of cleansed wash liquid into the sump 18.

In conditions of a heavy soil load, the filter screen 56 may become clogged with food soils. When this occurs, pressure within the soil collector 46 increases. This pressure increase is sensed by a pressure sensor 60. As the pressure within the soil collector 46 rises, this results in an increase in air pressure sensed by the pressure sensor 60. When the actual pressure in the soil

collector 46 exceeds a preselected limit pressure indicative of a clogged screen mesh 56, a remedial response can be activated. *Ibid., col. 4, ln. 22-39.*

Detecting the presence of light or oily soils is difficult due to the effectiveness of the filter backflushing. When a light soil load is present, backflushing of the filter screen 56 keeps the lighter soils from clogging the filter, and thus from increasing the pressure within the soil collector 46. A pressure reading within the soil collector 46 may not exceed the preselected limit pressure because pressure does not have an opportunity to build when the light and oily soils are backflushed. Through operation of the valve 108, however, the lower wash arm 48 can be periodically deactivated, discontinuing backflushing of the filter screen 56. This allows pressure to build within the soil collector 46. The pressure can be measured during this lower wash arm "off period," and a remedial response activated if the actual pressure is greater than a preselected light load limit pressure. The lower wash arm 48 can be deactivated at preselected times during the wash cycle to measure soils that are prevalent at different times. *Ibid., col. 4, ln. 45-62.*

The valve 108 can be constructed so that wash liquid flows through the pump outlet 34 to both the upper and lower wash arms when the lower wash arm is activated. Alternatively, wash liquid may selectively flow between the upper and lower wash arms in an alternating fashion. If an alternating wash arm operation is implemented, the pressure within the soil collector 46 is measured when the lower wash arm 48 is deactivated. This measurement can be timed to occur when the wash liquid is being supplied to the upper wash arm 27. *Ibid., col. 5, ln. 16-25.*

To summarize, Thies '216 discloses a dishwasher utilizing a pressure transducer and a filtering screen to measure soil quantity in a wash liquid. The dishwasher has upper and lower spray arms, the lower spray arm being used to flush the filter screen during a cleaning cycle. An increase in pressure indicates soil is clogging the filter screen, which indicates a relatively high concentration of soil in the wash liquid. However, when the soil level is low, or the soil consists primarily of oily material, the backflushing of the filter screen may prevent the filter screen from becoming clogged in a way that results in an increase in pressure. Thies '216 teaches that, in a pressure-based soil detection system, the quantity of soil in the wash liquid under conditions of

light or oily soil loads can be determined by halting the flushing of the filter screen by the lower spray arm for a period of time, and determining the pressure rise during this time period. With the apparatus and method of Thies '216, the upper spray arm is not involved in any way in the soil quantity determination.

To establish a *prima facie* case of obviousness, several basic criteria must be met. Under *Graham v. John Deere, 383 U.S. 1; 86 S. Ct. 684; 15 L. Ed. 2d 545 (1966)*, it is necessary to 1) determine the scope and content of the prior art; 2) ascertain the differences between the prior art and the claims at issue; 3) resolve the level of ordinary skill in the pertinent art; and 4) evaluate evidence of secondary consideration. Additionally, the obviousness evaluation will be informed by a showing of teaching, suggestion, or motivation that would lead a person of ordinary skill in the art to combine the prior art to meet the claimed subject matter, although a rigid application of this showing is not required. The obviousness analysis must be explicit, and it is necessary to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the prior art elements in the manner claimed. *KSR Int'l Co. v. Teleflex, Inc., 550 U.S. __; 127 S. Ct 1727; 82 U.S.P.Q.2d (BNA) 1385 (2007)*. Secondary considerations, such as commercial success, long felt but unsolved needs, failure of others, etc., may be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented. *Graham, supra, 383 U.S. at 17-18.*

The U.S. Patent and Trademark Office is subject to the Administrative Procedures Act, *5 U.S.C. §500 et seq*. "Under [the Administrative Procedures Act], [a court] will set aside legal actions of the [PTO] that are 'arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law,' **and set aside factual findings that are 'unsupported by substantial evidence**.'" *In re Bogese, 303 F.3d 1362, 1366; 64 U.S.P.Q.2D (BNA) 1448 (Fed. Cir. 2002)* (citations omitted)(emphasis added). Thus, the Examiner's findings must be supported by substantial evidence or they will be set aside as not in accordance with law.

A "finding" is more than an unsubstantiated conclusion. It is "A decision upon a question of fact reached as the result of a judicial examination or investigation by a court, jury, referee, coroner, etc." *Black's Law Dictionary, 5th Ed., West Publishing Co. (1979).*

The October 10, 2007, examination guidelines for determining obviousness under 35 U.S.C. §103 in view of *KSR, supra,* reaffirm the *KSR* mandate that a §103 rejection address the factual inquiries set out in the U.S. Supreme Court decision in *Graham v. John Deere Co.* These factual inquiries include, at a minimum, (1) determining the scope and content of the prior art; (2) ascertaining the difference between the claimed invention and the prior art; and (3) resolving the level of ordinary skill in the pertinent art. This analysis must be factual and objective. *72 Fed. Reg. 57526, 57527 (2007).*

> "Office personnel must therefore ensure that the written record includes <u>findings of fact</u> concerning the state of the art and the teachings of the references applied. … [I]t may also be important to include explicit findings as to how a person of ordinary skill would have understood prior art teachings, or what a person of ordinary skill would have known or could have done. Factual findings made by Office personnel are the necessary underpinnings to establish obviousness. Once the findings of fact are articulated, Office personnel must provide an explanation to support an obviousness rejection…." *Ibid (emphasis added).*

> "Any obviousness rejection should include, either explicitly or implicitly in view of the prior art applied, an indication of the level of ordinary skill. …Office personnel must explain why the difference(s) between the prior art and the claimed invention would have been obvious to one of ordinary skill in the art. … [T]he analysis supporting a rejection under 35 U.S.C. §103 should be made explicit. …[R]ejections on obviousness cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with

some rational underpinning to support the legal conclusion of obviousness." *72 Fed. Reg. 57526, 57528-57529 (2007).*

First, the Office action fails to address the *Graham* factual inquiries. Specifically, the Office action fails to properly determine the scope and content of the prior art, fails to properly ascertain the differences between the prior art and the claims at issue, and fails to properly resolve the level of ordinary skill in the pertinent art. On this basis alone, the rejection is unsupportable.

Initially, certain assertions in the Office action are unclear. The Office action states "Briefly, the invention of Bashark-Smith <u>obviates</u> a turbidity sensing washing machine which had a controller for measuring and comparing turbidity values attained during any pauses at the end of any of the circulation steps. The invention of Thies is then presented to <u>obviate</u> the use of alternating spray arms in a washing machine for use with the Bashark-Smith invention...." *Office action, p. 2 (emphasis added).* The Examiner's use of the word "obviates" is confusing. "Obviate" is defined as "To meet, encounter; hence, to withstand, oppose (a person or thing). To meet and dispose of or do away with (a thing); to clear out of the way; to prevent by anticipatory measures." *The Oxford English Dictionary, 2nd Ed., Oxford University Press/Clarendon Press (1991).* Applicants assume that the Examiner does not mean that Bashark-Smith opposes or does away with or prevents a turbidity sensing washing machine having a controller for measuring and comparing turbidity values, or that Thies opposes or does away with or prevents alternating spray arms in a washing machine. Applicants will proceed on the assumption that the Examiner means that Bashark-Smith and Thies disclose the described structures.

As to the first *Graham* factual inquiry, the Office action asserts that Bashark and Smith disclose "comparing turbidity values attained during any pauses at the end of any of the circulation steps." *Office action, p. 2.* The Office action also asserts "Bashark and Smith teach the claimed invention of a turbidity sensing washing machine which measures and compares turbidity after different circulation cycles...." *Office action, p. 5.* This is a mischaracterization because Bashark '269 only discloses comparing the measured turbidity against a preselected

value. *See, for example, Bashark '269, col. 9, ln. 14-15, 54-55.* Similarly, Smith '567 only discloses comparing measured turbidity against a turbidity value for clean water. *See, for example, Smith '567, col. 5, ln. 19-32.* Thus, Bashark '269 and Smith '567 disclose comparing a measured turbidity value against a benchmark value, not comparing measured turbidity values during pauses in circulation steps, and the Examiner has therefore failed to properly determine the scope and content of the prior art.

Similarly, the Office action asserts that in the system of Thies '216 "The measurement can be timed to occur when the was [sic] liquid is being supplied to each wash arm." *Office action, p. 5.* The Office action also asserts "As taught by Thies, sensing the dirtiness of the water and associating it with different spray arms is known in the art." *Ibid.* This is yet another mischaracterization of the prior art because Thies '216 does not disclose the operations and characteristics attributed to it by the Examiner. Thies '216 only discloses taking a measurement when the lower spray arm is halted. Thus, the Examiner has again failed to properly determine the scope and content of the prior art. The first *Graham* factual inquiry has not been satisfied.

As to the second *Graham* factual inquiry, the Office action fails to properly ascertain the differences between the prior art and the claims at issue, in part because, as discussed above, the Office action fails to properly determine the scope and content of the prior art. If the scope and content of the prior art have not been properly determined, then the differences between the prior art and the claims at issue cannot be properly ascertained. The Examiner does concede that neither Bashark '269 nor Smith '567 discloses "a method for alternately recirculating the rinsing liquid and thus the determined turbidity values being associated with the respective lower or upper spray plane in operation." *Office action, p. 5.* However, because the Examiner fails to properly determine the scope and content of Thies '216, the differences between the prior art and the claims at issue cannot be properly ascertained. The second *Graham* factual inquiry has not been satisfied.

As to the third *Graham* factual inquiry, there is no factual, objective analysis of the level of ordinary skill in the pertinent art to be found anywhere in the Office action. Indeed, the Office

action fails to address the level of ordinary skill at all. Thus, the third *Graham* factual inquiry has also not been satisfied. On the basis of a complete failure to satisfy any of the *Graham* factual inquiries, the rejection cannot be supported.

The Office action has articulated no factual analysis of any rationale that would lead a person of ordinary skill to combine the prior art references in the manner asserted in the Office action. Both Bashark '269 and Smith '567 are directed to turbidity determinations based on light transmission measurements, and apparatus and methods to enhance the accuracy of such light transmission measurements. Thies '216 is directed to turbidity determinations based upon pressure measurements, and an apparatus and method to enhance the accuracy of the pressure measurements under conditions of light or oily soil loads. The apparatus of Thies '216 is markedly different from the apparatus of Bashark '269 and Smith '567. The method disclosed in Thies '216 is also markedly different from the methods of Bashark '269 and Smith '567. Presumably, the inventors associated with each reference selected the method most appropriate for the disclosed apparatus to provide the optimal dishwashing results. Given the disparity in the different apparatus, and the narrow focus of the methods disclosed therein, there would be no reason to combine the references in the manner asserted in the Office action.

Moreover, because the utility of the method disclosed in Thies '216 is directly related to the manner in which turbidity is determined, i.e. through a pressure transducer, a person of ordinary skill considering a dishwasher with a light-based turbidity sensor would not look to a reference directed to a pressure-based sensor.

Independent claim 24 calls for a method of cleaning dishes in a dishwasher in accordance with a programmed wash cycle implemented by a central control unit. The wash cycle comprises a rinse step and a cleaning step where a rinsing liquid is recirculated in the dishwasher. The dishwasher comprises an upper spraying apparatus defining an upper spray plane and a lower spraying apparatus defining a lower spray plane. The method comprises 1) determining turbidity values corresponding to the recirculation of the rinsing liquid in the lower spray plane and the upper spray plane, respectively, 2) determining a degree of soiling by

determining a difference value corresponding to the difference between the turbidity values of the upper and lower spray planes, and 3) setting at least one operating parameter of at least one of the rinse step and the cleaning step based on the determined degree of soiling. The lower and upper spray planes alternately recirculate the rinsing liquid. The determined turbidity values are associated with the respective spray plane in operation.

Independent claim 41 calls for a method of cleaning dishes in a dishwasher in accordance with a programmed wash cycle implemented by a central control unit. The wash cycle comprises a rinse step and a cleaning step where a rinsing liquid is recirculated in the dishwasher. The dishwasher comprises a first and second set of spray nozzles. The method comprises 1) alternately operating the first and second set of spray nozzles, 2) determining a first turbidity value associated with the operation of the first set of spray nozzles, 3) determining a second turbidity value associated with the operation of the second set of spray nozzles, 4) determining a degree of soiling of the rinsing liquid based on a difference value corresponding to the difference between the first and second turbidity values, and 5) setting at least one operating parameter of at least one of the rinse step and the cleaning step based on the determined degree of soiling.

To summarize, in pertinent part, both claims 24 and 41 call for determining turbidity values corresponding to the alternating operation of an upper spraying apparatus and a lower spraying apparatus, determining a degree of soiling by determining the difference between the turbidity values associated with the upper and lower spraying apparatus, and setting an operating parameter based on the determined degree of soiling.

The Office action relies upon 2 rationales in support of the rejection. The Office action asserts that "It would have been obvious for one skilled in the art to use the lower and upper spray plane, and turbidity sensing mechanism taught Smith et al. [sic] in the Bashark process to obtain the claimed process. This is because both references are from the same technical endeavor, which is using the turbidity sensor to determine the turbidity of the rinse water. This is also because the steps of measuring the turbidity as taught by Bashark will include

determining the solubility of the soil as claimed. See Smith et al., col. 3, lines 51-53. This is also because the degree of turbidity depends on the amount of soil been found on the dishes. See Bashark, col. 3, lines 3-20." *Office action, p. 4-5.*

The Office action also asserts that "It would have been obvious to one of ordinary skill in the art at the time of the invention to alternate the spray patterns in Bashark and Smith to ensure recirculation of washing liquid that is not too dirtied, as taught by Thies. Recirculation of washing liquid minimizes water use and detergent use, is more cost effective, and energy efficient. As taught by Thies, sensing the dirtiness of the water and associating it with different spray arms is known in the art. Recirculating really dirty water results in ineffectual cleaning and often requires even more cleaning which in turn increases time, financial burdens, and resources required to clean articles in a washing machine; therefore, sensing the dirtiness of the fluid is a known means taught by Thies to achieve optimal cleaning. Incorporating this feature of Thies to the turbidity sensing washing machine of Bashark-Smith would have an obvious variant [sic] in the art of spraying recirculated washing fluid in washing machines that use soil measuring means. See Thies, col. 5, lines 8-12, 19-29 and col. 6, lines 35-40. Therefore, by using Thies' alternating spray arms during the circulation wash cycle of the Bashark-Smith invention it is at once envisaged that during a pause after each spray arm is finished recirculating liquid, then the turbidity sensor of Bashark-Smith allows the washing machine to obtain and compare turbidity measurements." *Office action, p. 5-6.* Neither of these rationales is adequate.

As to the first rationale, it would not have been obvious for one skilled in the art to use the lower and upper spray planes and turbidity sensing mechanism taught by Smith '567 in the Bashark '269 process to obtain the claimed process because the combination of Smith '567 and Bashark '269 do not reach the invention of claims 24 and 41. As discussed above, the Examiner concedes that neither Bashark '269 nor Smith '567 discloses a method for alternately recirculating the rinsing liquid and, consequently, the turbidity values associated with the respective lower or upper spray plane operations. Furthermore, the fact that both references may be from the same technical endeavor is not enough to support an obviousness rejection. Whether references are from the same technical endeavor may be relevant for purposes of determining

whether a reference is non-analogous art. However, it is not dispositive of obviousness. Finally, that measuring turbidity may include determining the solubility of soil or the amount of soil on dishware is also irrelevant to the issue of whether it would be obvious to combine the references. The Examiner fails to articulate any reason why determining the solubility of soil or the amount of soil on dishware would be considered a reason to combine references that each disclose determining the solubility of soil or the amount of soil on dishware. The first rationale does not support the rejection.

As to the second rationale, the Examiner offers no support for the conclusion that alternating spray patterns would ensure recirculation of washing liquid that is not too dirtied. Indeed, the dirtiness of the washing liquid is totally unrelated to alternating spray patterns. Alternating spray patterns can be utilized to recirculate dirty wash liquid just as easily as clean wash liquid. The fact that recirculation of washing liquid may minimize water use and detergent use, may be more cost effective, and energy efficient is irrelevant to the issue of why a person of ordinary skill would combine the cited references in an attempt to determine turbidity values associated with the alternating operation of upper and lower spray apparatus. Claims 24 and 41 contemplate recirculation during alternating operation of upper and lower spray apparatus. However, claims 24 and 41 are directed to comparing different turbidity values obtained during alternating operation of upper and lower spray apparatus. The Examiner's assertion regarding recirculation does not support the rejection.

The assertion that sensing the dirtiness of the fluid is a known means taught by Thies '216 to achieve optimal cleaning similarly does not support the rejection. Arguably each of the references teaches that sensing the turbidity, i.e. the dirtiness, of the wash liquid can result in optimal cleaning. If anything, the fact that each of the references discloses this characteristic argues against the combination of the references because none of the references adds anything concerning this characteristic to any other reference. This rationale is not sufficient to support the addition of Thies '216 to Smith '567 and Bashark '269.

It is unclear what is meant by the assertion "Incorporating this feature of Thies to the turbidity sensing washing machine of Bashark-Smith would have an obvious variant [sic] in the art of spraying recirculated washing fluid in washing machines that use soil measuring means." It appears the Examiner is asserting that incorporating a feature of Thies '216 into the dishwasher of Smith '567 and Bashark '269 would result in a different device. While this may be incontrovertible, it is not sufficient to support the combination. Every combination presumably would result in a different device or method. This alone is not enough for an obviousness rejection.

Finally, the rejection cannot be sufficiently supported by the assertion that using the alternating spray arms of Thies '216 during the circulation wash cycle of the dishwasher of Smith '567 and Bashark '269 so that, during a pause after each spray arm is finished recirculating liquid, the turbidity sensor of Smith '567 and Bashark '269 can allow the dishwasher to obtain and compare turbidity measurements. As discussed above, claims 24 and 41 are not directed simply to alternating upper and lower spray apparatus. Claims 24 and 41 are directed to alternating upper and lower spray apparatus to achieve the express purpose of obtaining a turbidity value for each of the spray planes. This purpose is not disclosed in Thies '216. The fact that Thies '216 may disclose alternately operating the upper and lower spray apparatus is insufficient to support the rejection.

The above-described limitations of claims 24 and 41 are also not disclosed in Smith '567 or Bashark '269. Thus, this purpose in claims 24 and 41 cannot be disclosed in the combination of Smith '567, Bashark '269, and Thies '216. Even if the combination were proper, which it is not, the combination of Smith '567, Bashark '269, and Thies '216 would teach only the determination of turbidity during halting of the lower spray arm, and the comparing of that turbidity with a preselected base value. It would not teach determining a turbidity value for each of the spray planes, and then initiating a further action based on those two turbidity values.

The Examiner clearly falls into the trap of hindsight reconstruction of Applicants' invention utilizing Applicants' disclosure as a blueprint. The Examiner is, in effect, "filling in"

missing elements of the claims, i.e. alternating the upper and lower spray apparatus, determining turbidity values during the alternating operation, and comparing those turbidity values, which are not disclosed in any of the references. The Examiner simply concludes, without any factual support as required by *Graham, supra*, *KSR, supra*, the Administrative Procedures Act, and the October 10, 2007, examination guidelines, that it would be obvious to combine Smith '567, Bashark '269, and Thies '216, and that the combination discloses each limitation of the claims. As discussed above, these assertions have no factual basis, and are inadequate to sustain the rejection under35 U.S.C. § 103(a).

Independent claims 24 and 41 are patentable over the combination of Smith '567, Bashark '269, and Thies '216. The remaining claims, claims 2, 8, 25-27, 29, 31, 32, 34-39, and 42-44, depend directly or indirectly from claim 24 or claim 41, and are, for the same reasons, patentable over the combination of Smith '567, Bashark '269, and Thies '216. Applicants request withdrawal of the rejection, and the allowance of claims 2, 8, 24-27, 29, 31, 32, 34-39, and 41-44.

If there are any remaining issues which the Examiner believes may be resolved in an interview, the Examiner is respectfully invited to contact the undersigned.

Respectfully submitted,

CLEMENS JUNG ET AL.

Dated: January 25, 2008

By: /Michael F Kelly/

Mark A. Davis, Reg. No. 37,118
Michael F. Kelly, Reg. No. 50, 859
McGARRY BAIR PC
32 Market Ave., SW; Ste. 500
Grand Rapids, Michigan 49503
616-742-3500